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(54) **Cage plate adjusting mechanism for a bicycle rear derailleur**

(57) An adjusting mechanism (13) is provided for a bicycle derailleur (10), which can adjust a position of a chain guide (26) in an axial direction. The derailleur (10) basically has a base member (20), a movable member with the chain guide (26) and a linkage assembly. The adjustment mechanism (13) is preferably operatively coupled between the movable member and the chain guide (26), or between the base member (20) and the frame (12). The adjusting mechanism (13) includes a first tubular portion (80), a second tubular portion (74), a biasing member (36) and an adjustment member. The second tubular portion (74) is arranged around the first tubular portion (80) to move axially relative to the first tubular portion (80) via the adjustment member. The biasing member (36) is arranged to apply an urging force on the tubular portions (74,80). One of the tubular portions (74,80) has a rigid non-compressible support projection (78) arranged to selectively contact the other tubular portion when the tubular portions (74,80) move relative to each other.

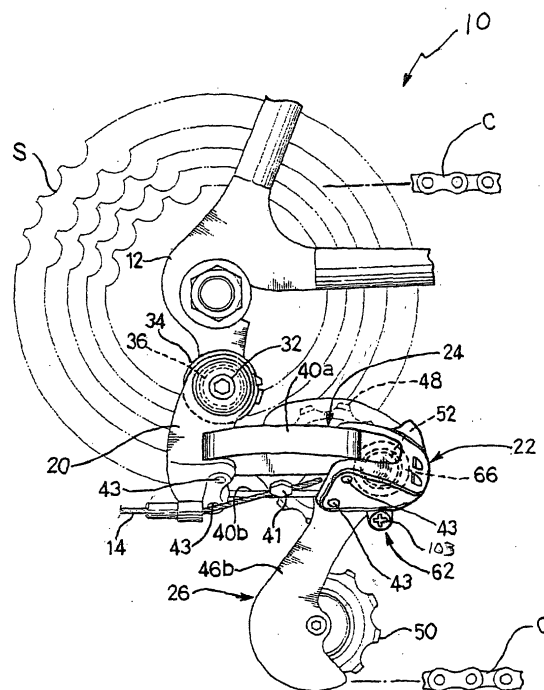


Fig. 1



European Patent
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EUROPEAN SEARCH REPORT

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DOCUMENTS CONSIDERED TO BE RELEVANT			
Category	Citation of document with indication, where appropriate, of relevant passages	Relevant to claim	CLASSIFICATION OF THE APPLICATION (Int.Cl.7)
A	EP 1 116 647 A (SHIMANO KK) 18 July 2001 (2001-07-18) * the whole document *	1,16	B62M9/12 B62M9/16
D,A	US 4 850 940 A (NAGANO MASASHI) 25 July 1989 (1989-07-25) * the whole document *	1,16	
A	EP 0 032 049 A (SHIMANO INDUSTRIAL CO) 15 July 1981 (1981-07-15) * the whole document *	1,16	
			TECHNICAL FIELDS SEARCHED (Int.Cl.7)
			B62M
The present search report has been drawn up for all claims			
Place of search Munich		Date of completion of the search 21 January 2005	Examiner Jung, W
CATEGORY OF CITED DOCUMENTS X : particularly relevant if taken alone Y : particularly relevant if combined with another document of the same category A : technological background O : non-written disclosure P : intermediate document T : theory or principle underlying the invention E : earlier patent document, but published on, or after the filing date D : document cited in the application L : document cited for other reasons & : member of the same patent family, corresponding document			

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**ANNEX TO THE EUROPEAN SEARCH REPORT
ON EUROPEAN PATENT APPLICATION NO.**

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The members are as contained in the European Patent Office EDP file on
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21-01-2005

Patent document cited in search report		Publication date	Patent family member(s)	Publication date
EP 1116647	A	18-07-2001	US 6394921 B1	28-05-2002
			CN 1305917 A ,B	01-08-2001
			EP 1116647 A2	18-07-2001
			JP 3568123 B2	22-09-2004
			JP 2001225785 A	21-08-2001
			TW 477765 B	01-03-2002
US 4850940	A	25-07-1989	JP 63195992 U	16-12-1988
			DE 3819179 A1	22-12-1988
			FR 2616188 A1	09-12-1988
			IT 1217788 B	30-03-1990
EP 0032049	A	15-07-1981	JP 1433992 C	07-04-1988
			JP 56099869 A	11-08-1981
			JP 62041159 B	01-09-1987
			JP 1419589 C	14-01-1988
			JP 56099870 A	11-08-1981
			JP 62026957 B	11-06-1987
			EP 0032049 A2	15-07-1981

EPO FORM P0459

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